

Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Transferrent controlly, 5 25577 - Tombe the tomo ville in things be essential to our idea of life, it may be asked, what is the condition of a seed, which may remain unaltered during a period of many centuries; vegetating at last, when placed in favorable circumstances, as if it had only ripened the year before. Such a seed is not alive; for it is not performing any vital operations. But it is not dead, for it has undergone no decay; and it is still capable of being aroused into active life, when the proper stimuli are applied. And the most correct designation of its state seems to be that of dormant vitality." This was the straw which broke the camel's back: and I here thank Dr. CARPENTER, not only for this, but for many really positive benefits. Here we had the seed neither dead nor alive, but its "vitality" was "dormant," needing only "stimuli" to "arouse" it! Convinced as I was of the absolute truth of the principles which had been taught me in mechanics and in natural philosophy, I confess that all this seemed to me even worse than jargon, appearing as it did in our text book on Physiology.\*

My reflections here, thus excited, were after this manner: What are these stimuli? What is the difference in the conditions of a grain of corn in the granary from the conditions when it is germinating? The seed that is germinating is under the influence of *moisture*, in addition to the heat and air operating upon the dry-seed in the granary. But heat, air,





<sup>\*</sup>See also even the last English edition (1864) of his "Human Physiology";—note on page 2.

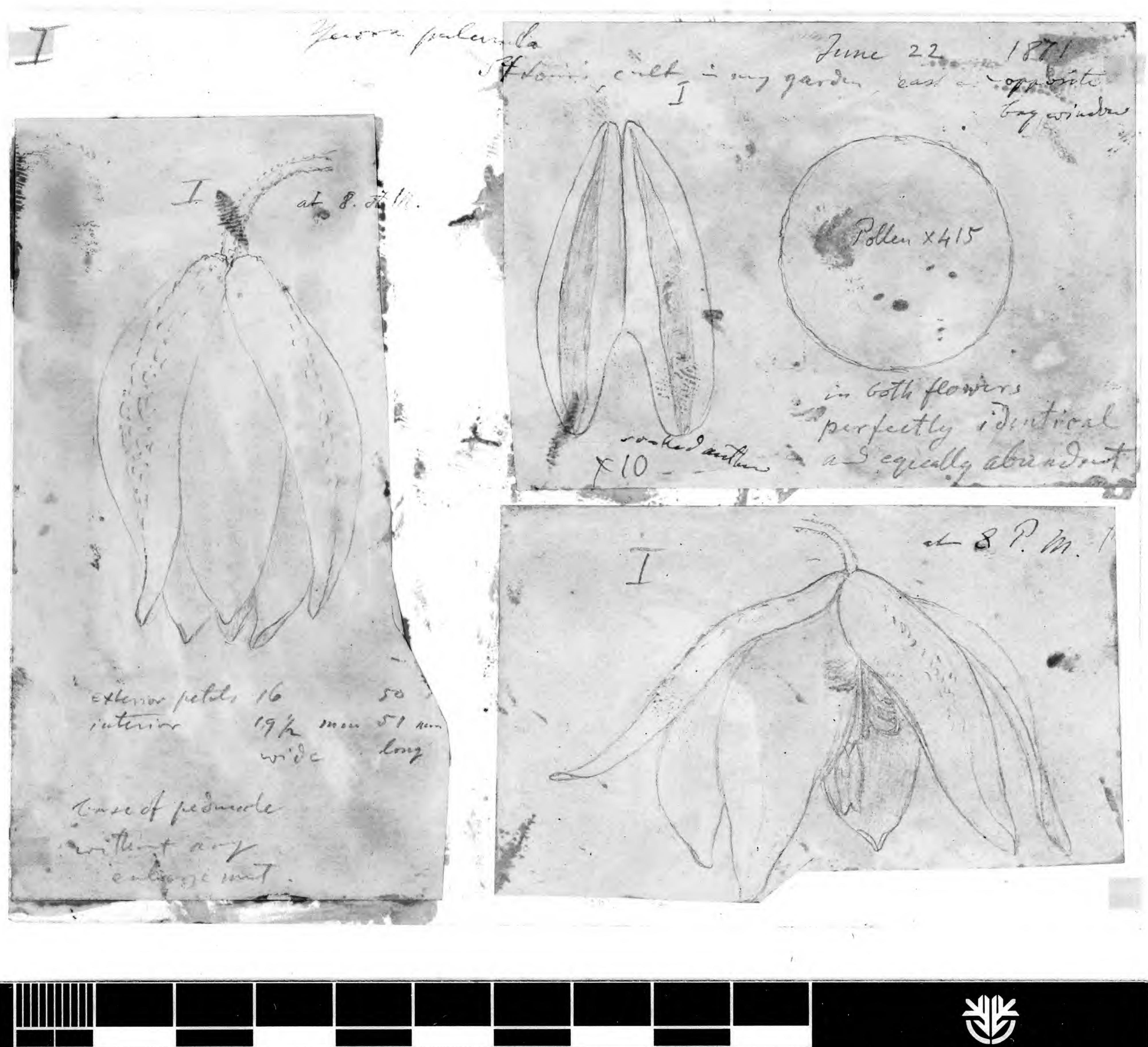
tion to various vital phenomena, to develop uns conception. Yet appreciating its imperfections, especially in modes of expression, I did not have the boldness to offer it to any medical journal for publication; but at the same time believing that it contained the *germ* of a great truth, I had it published on my own responsibility, knowing that if I was not mistaken it would bear fruit, though after many days. I then and there determined to devote myself to that line of study, that I might some day be able to present it to the world in a form worthy of the subject and of the audience.

I now propose to establish that my animadversions in regard to Dr. CARPENTER, to which he objects in his letter, were not made hastily or "in ignorance of the facts;" but that they are justified in every particular by the records. The argument will contain just four points, which I will state briefly:

First. From my thesis, published in 1851, and from a series of articles subsequently published in the St. Louis Medical and Surgical Journal, I shall reproduce sufficient to show my annunciation and elucidation of the position that life and decay are reciprocal; that the form or organization determines the direction of those peculiar actions called vital, while those same actions are reciprocal with a "downward" process, as in machines of art.

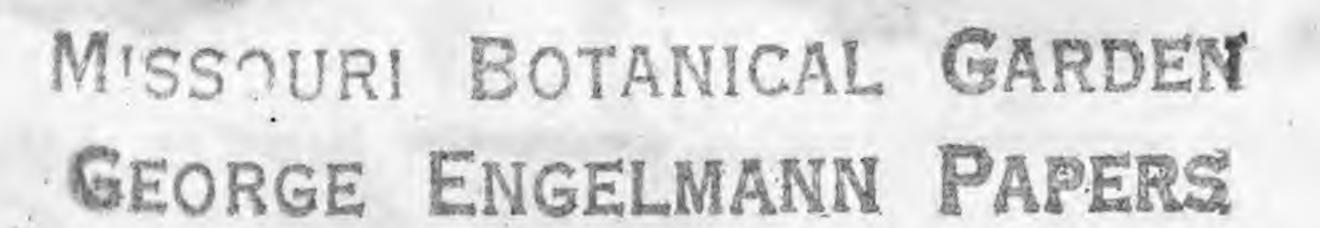
MISSOURI BOTANICAL GARDEN



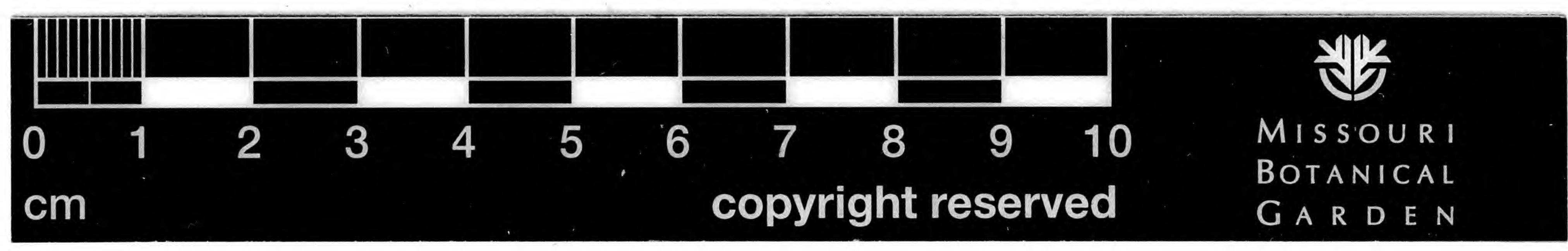


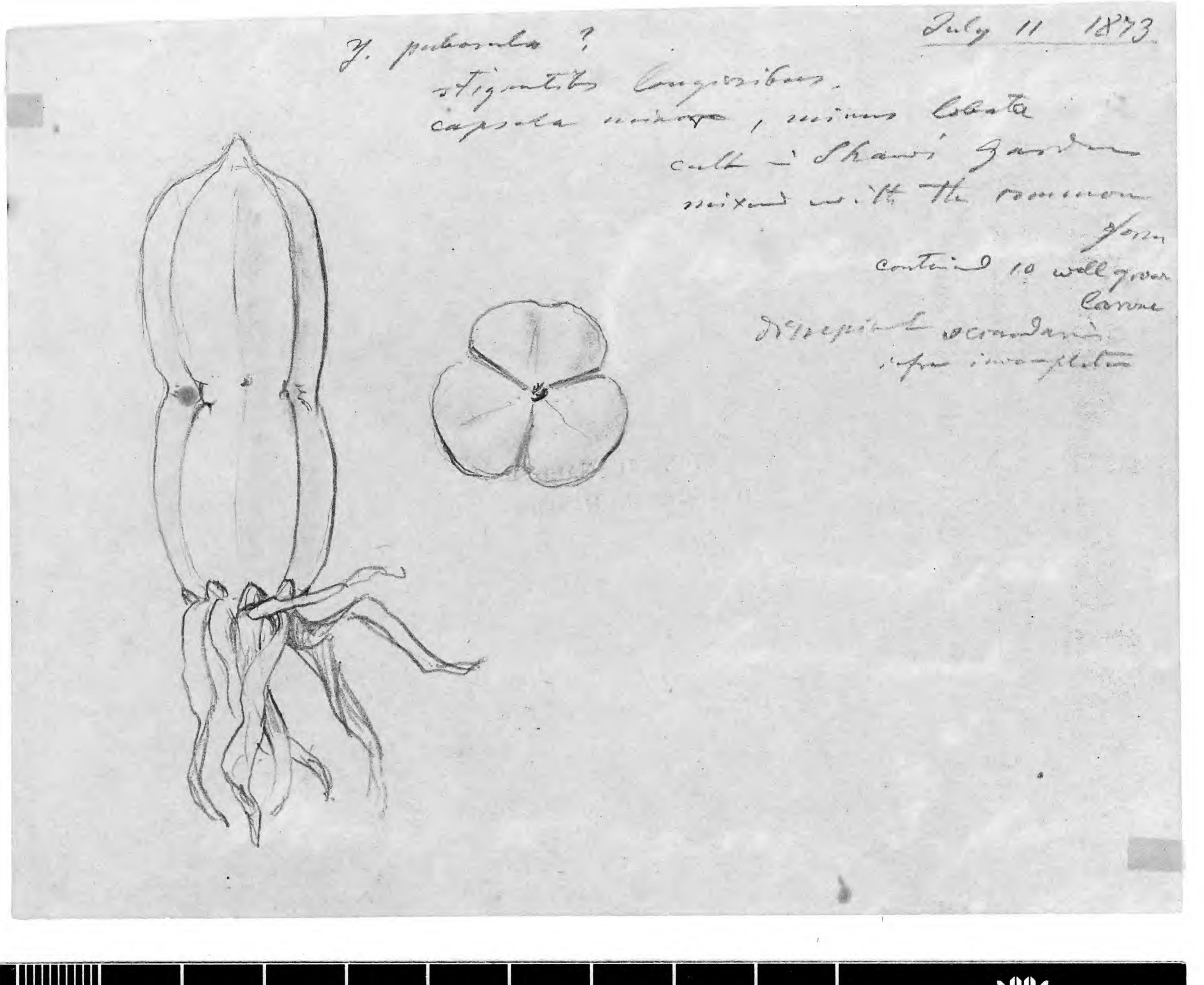
0 1 2 3 4 5 6 7 8 9 10 cm copyright reserved

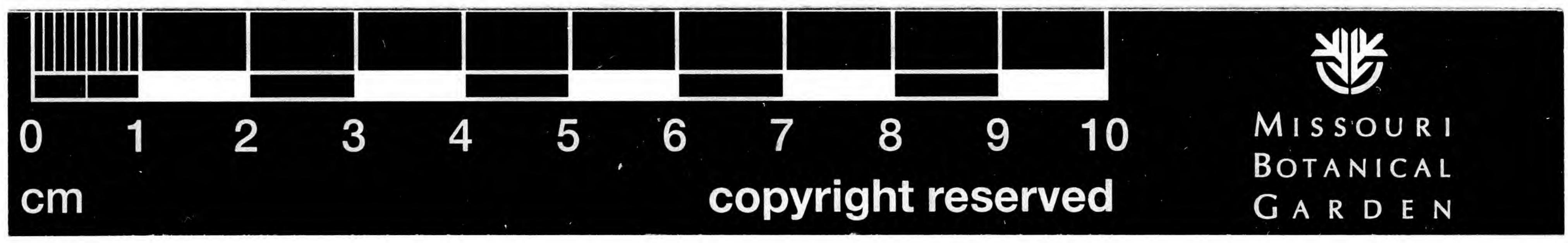
MISSOURI BOTANICAL GARDEN



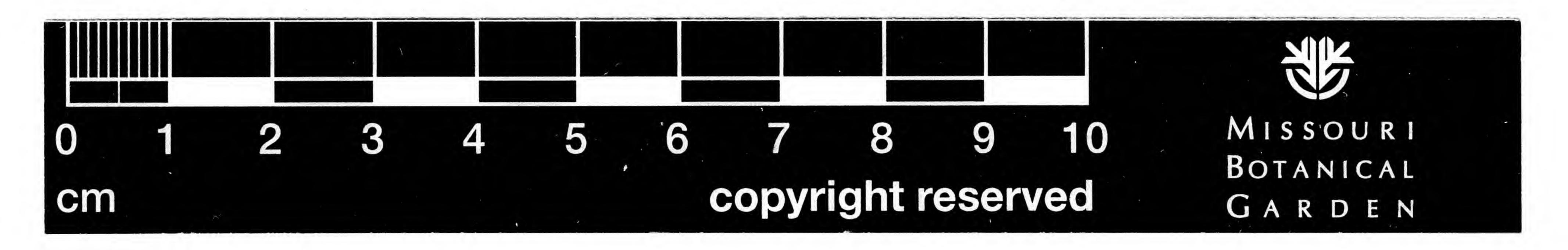


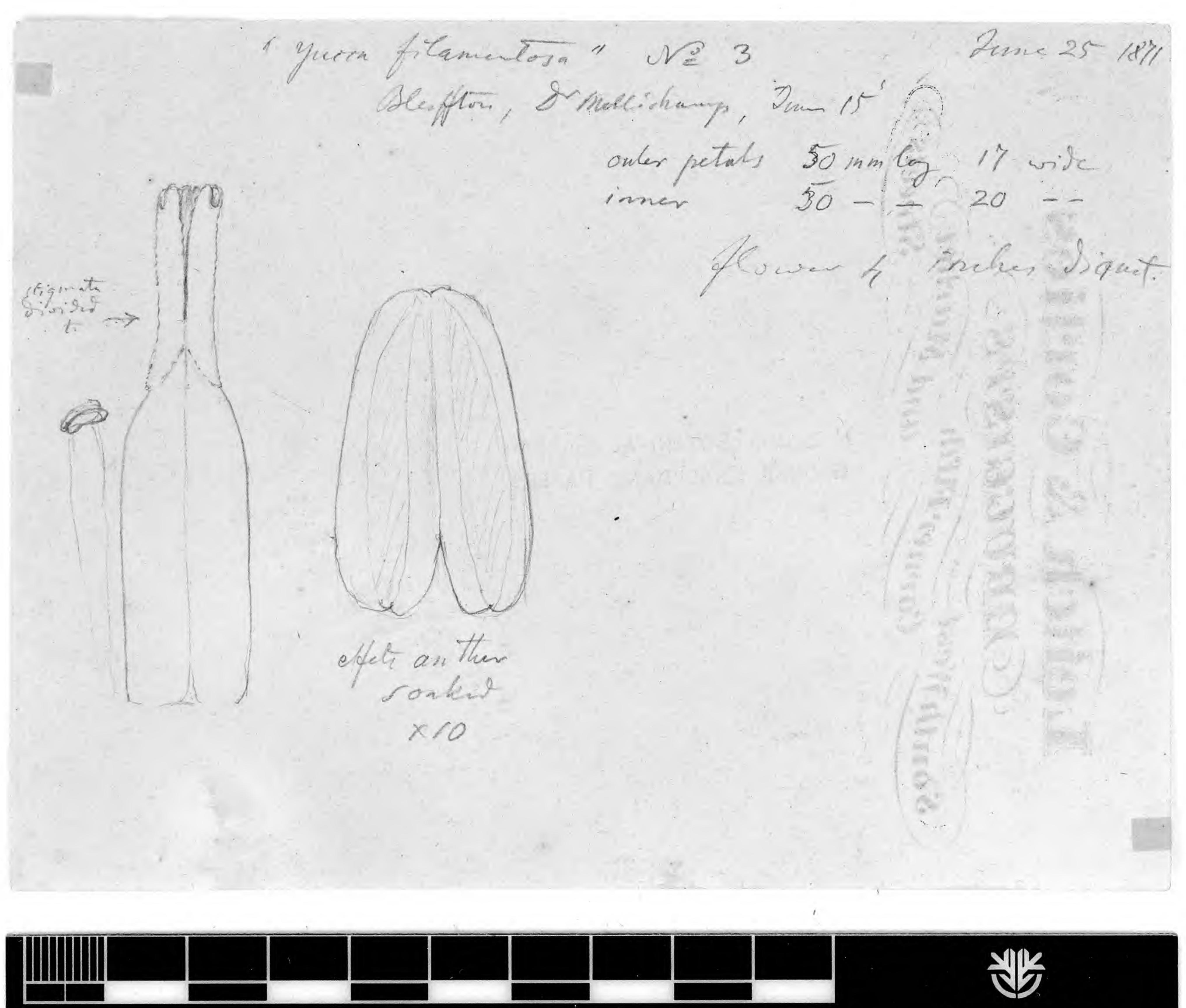






## POLICARY & CHRIST

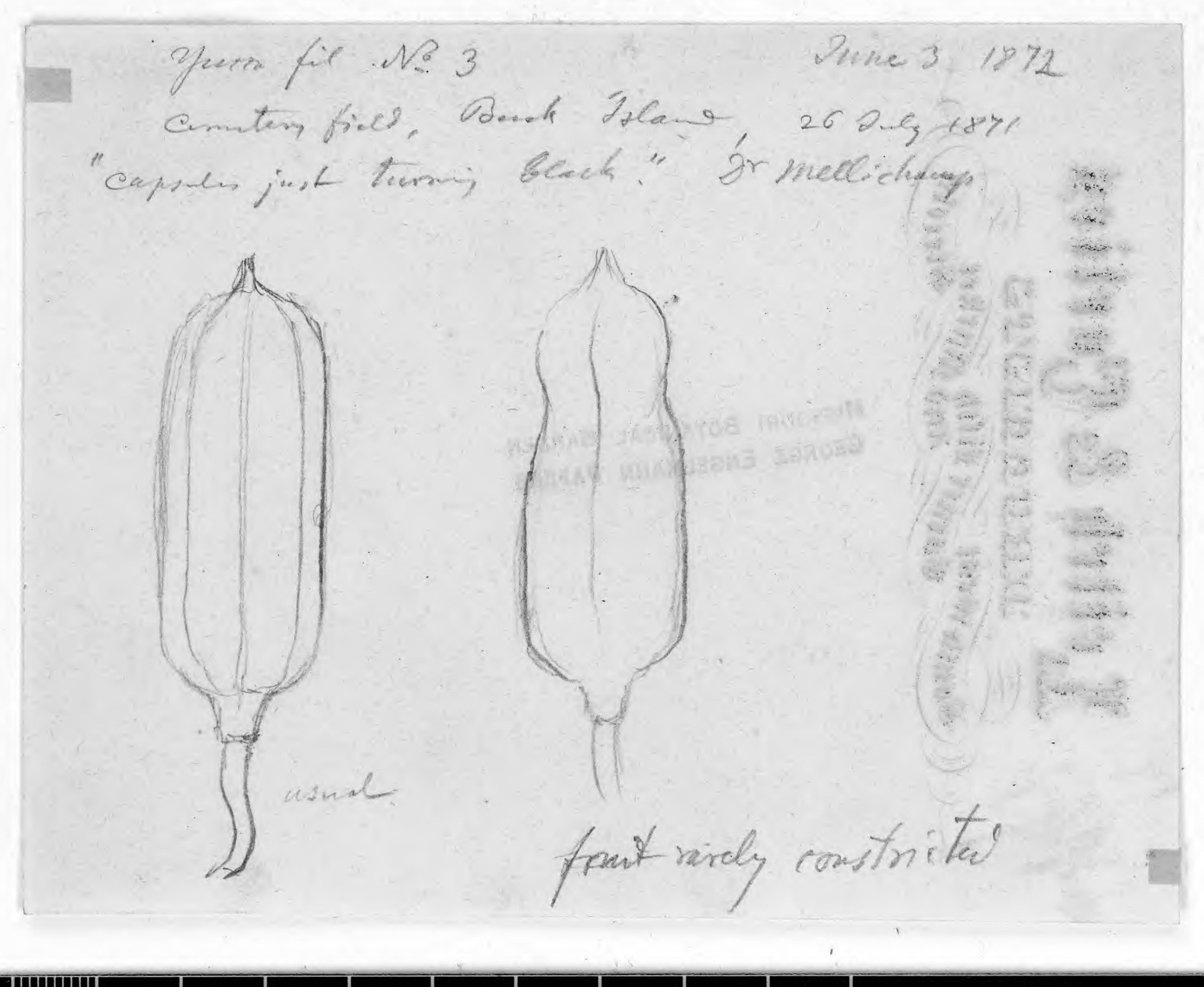








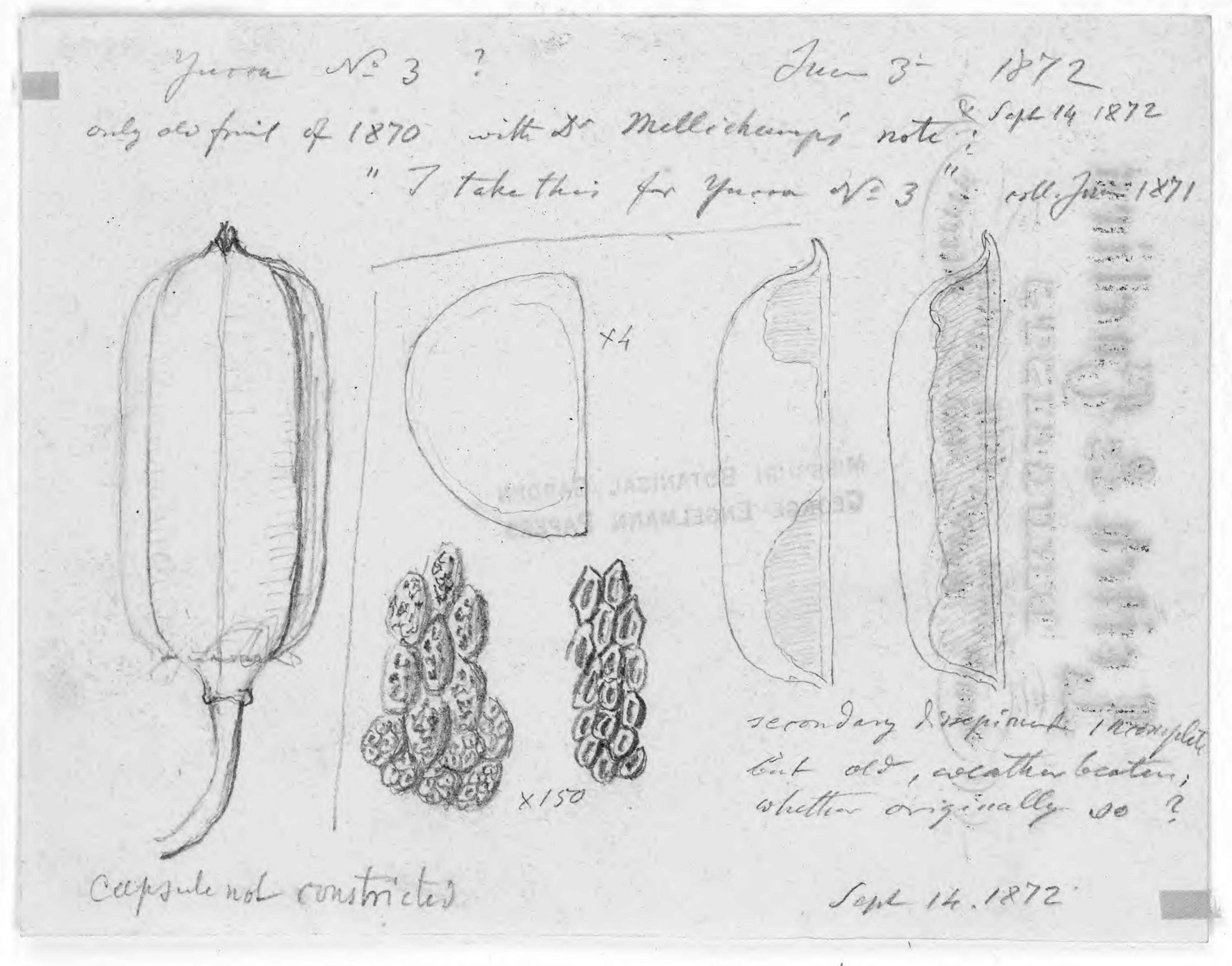








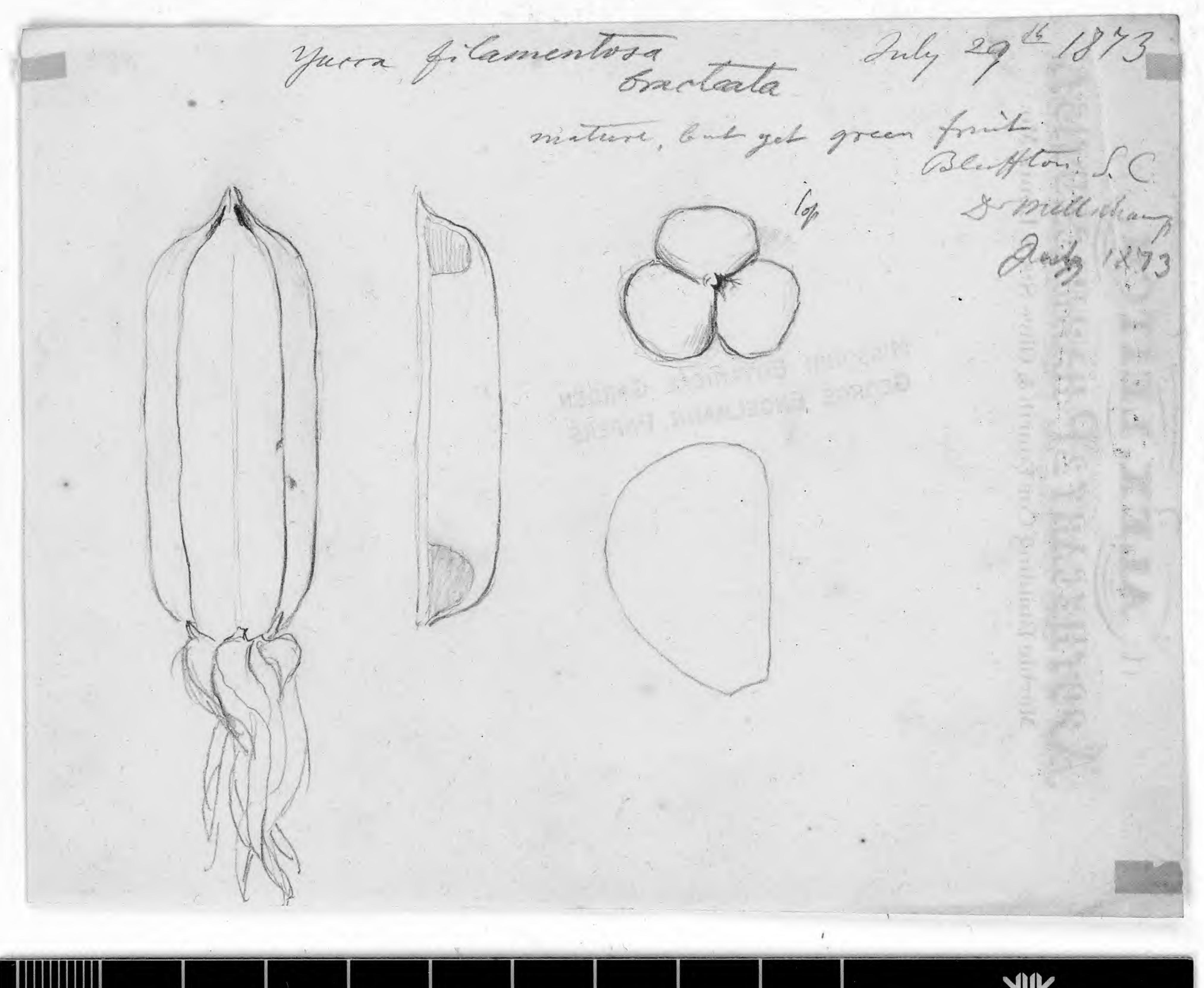








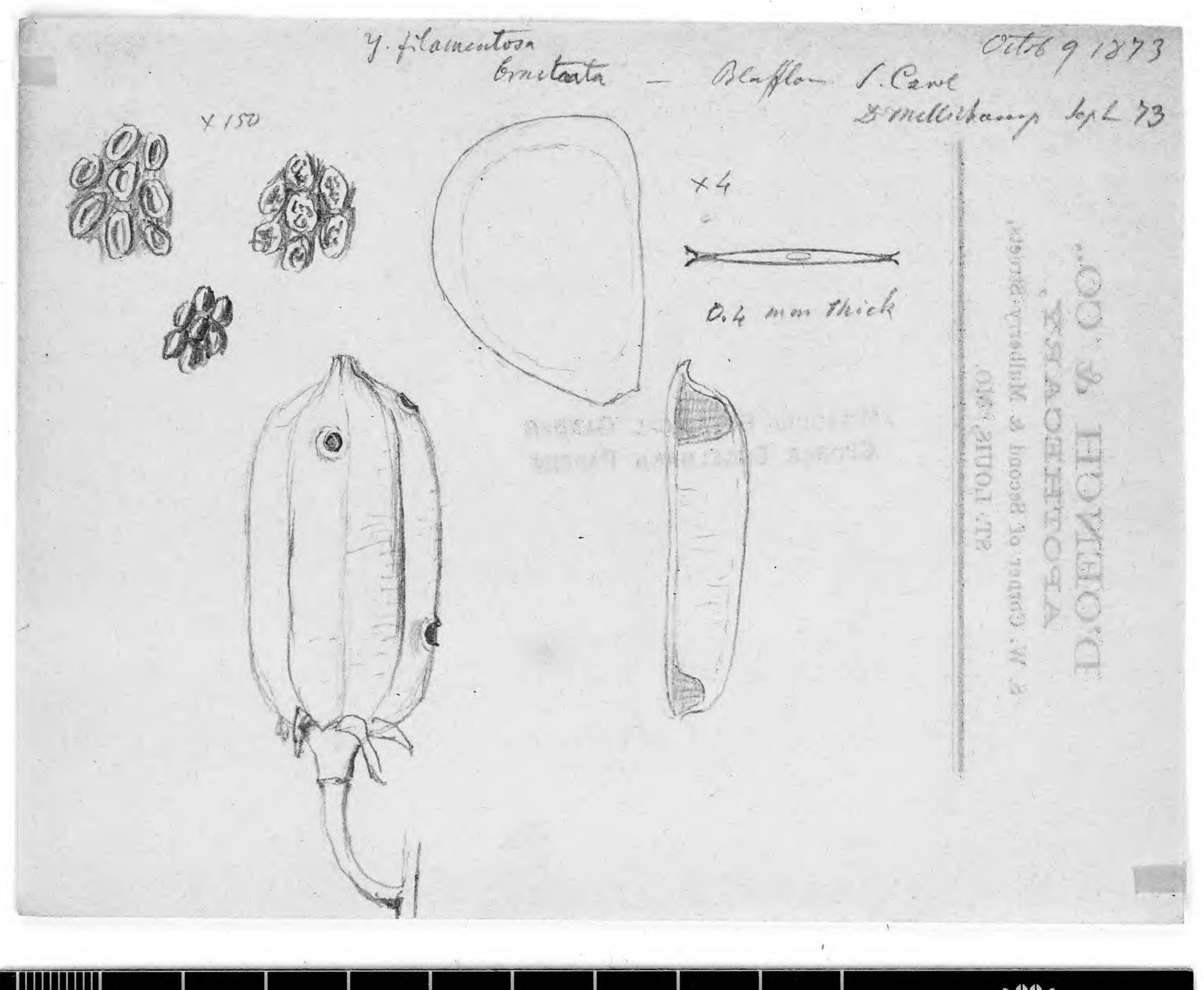








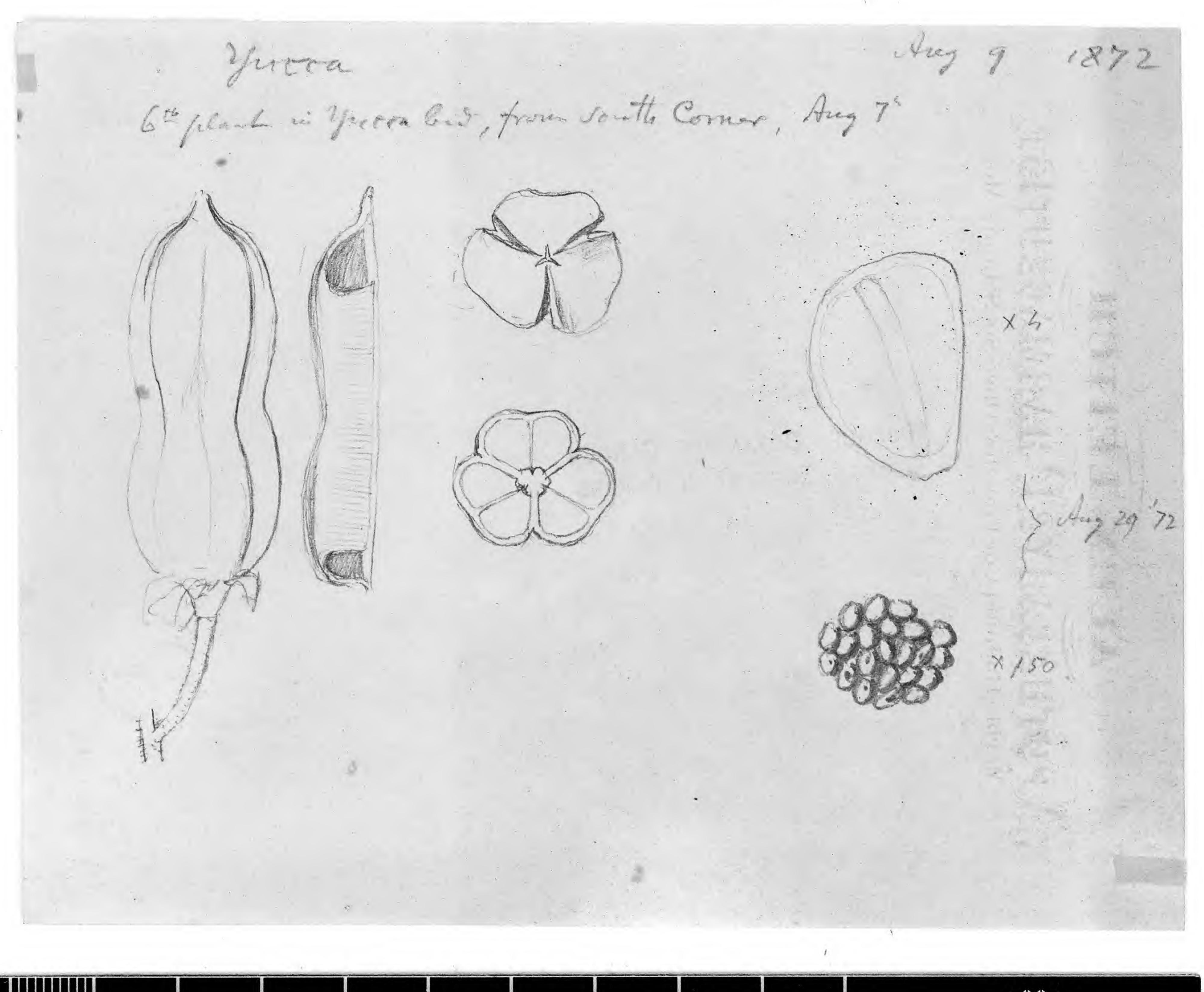


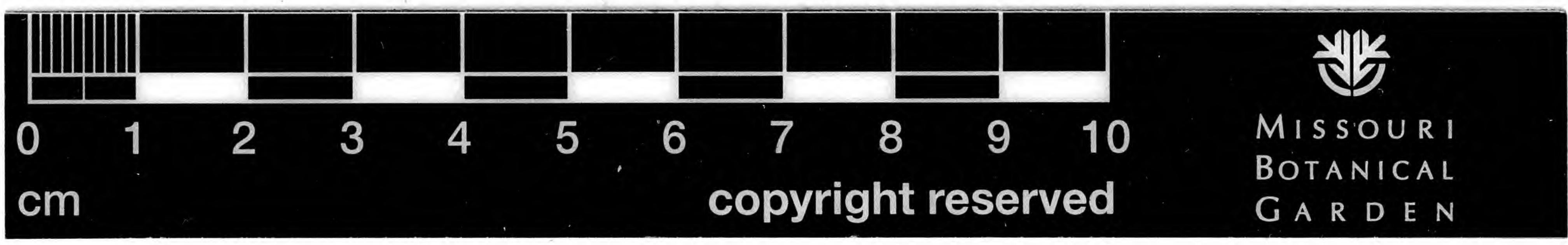


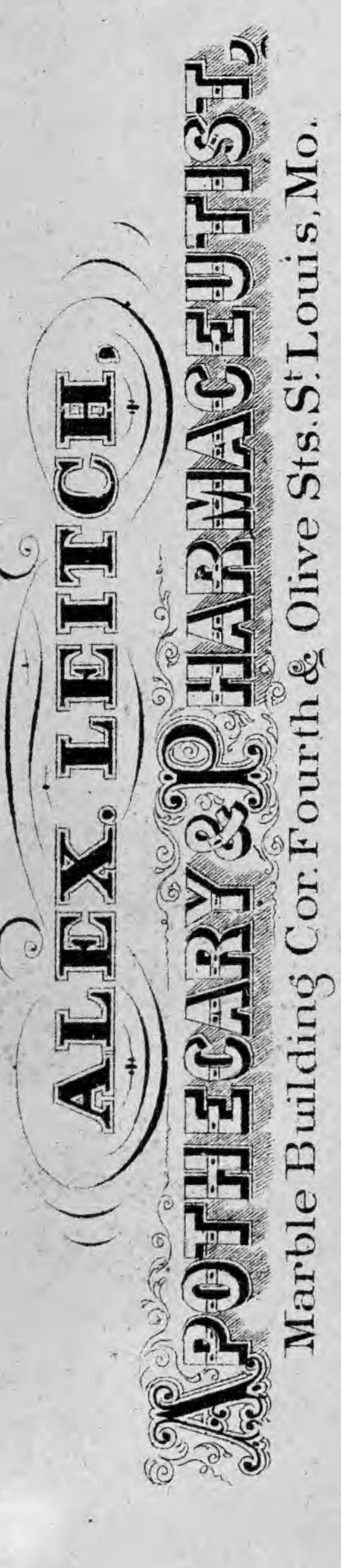


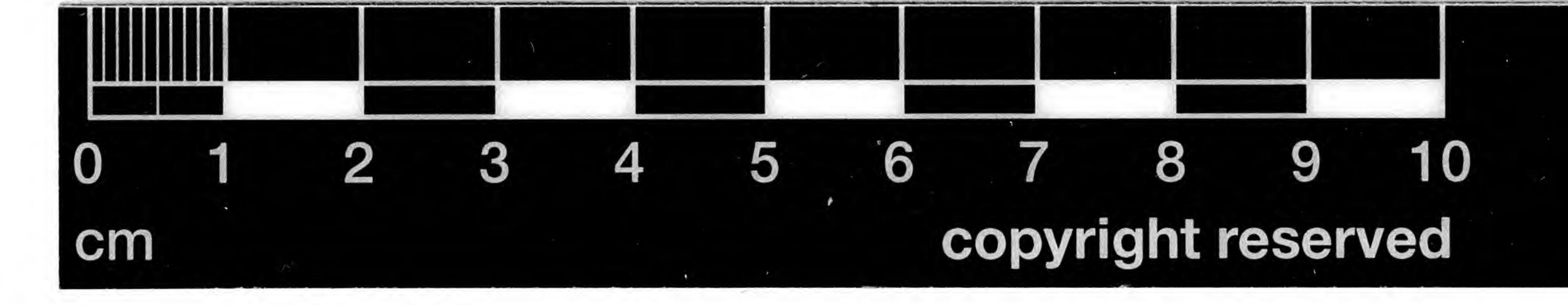
D'OENCH & CO.,
APOTHECARY,
S. W. Corner of Second & Mulberry Street



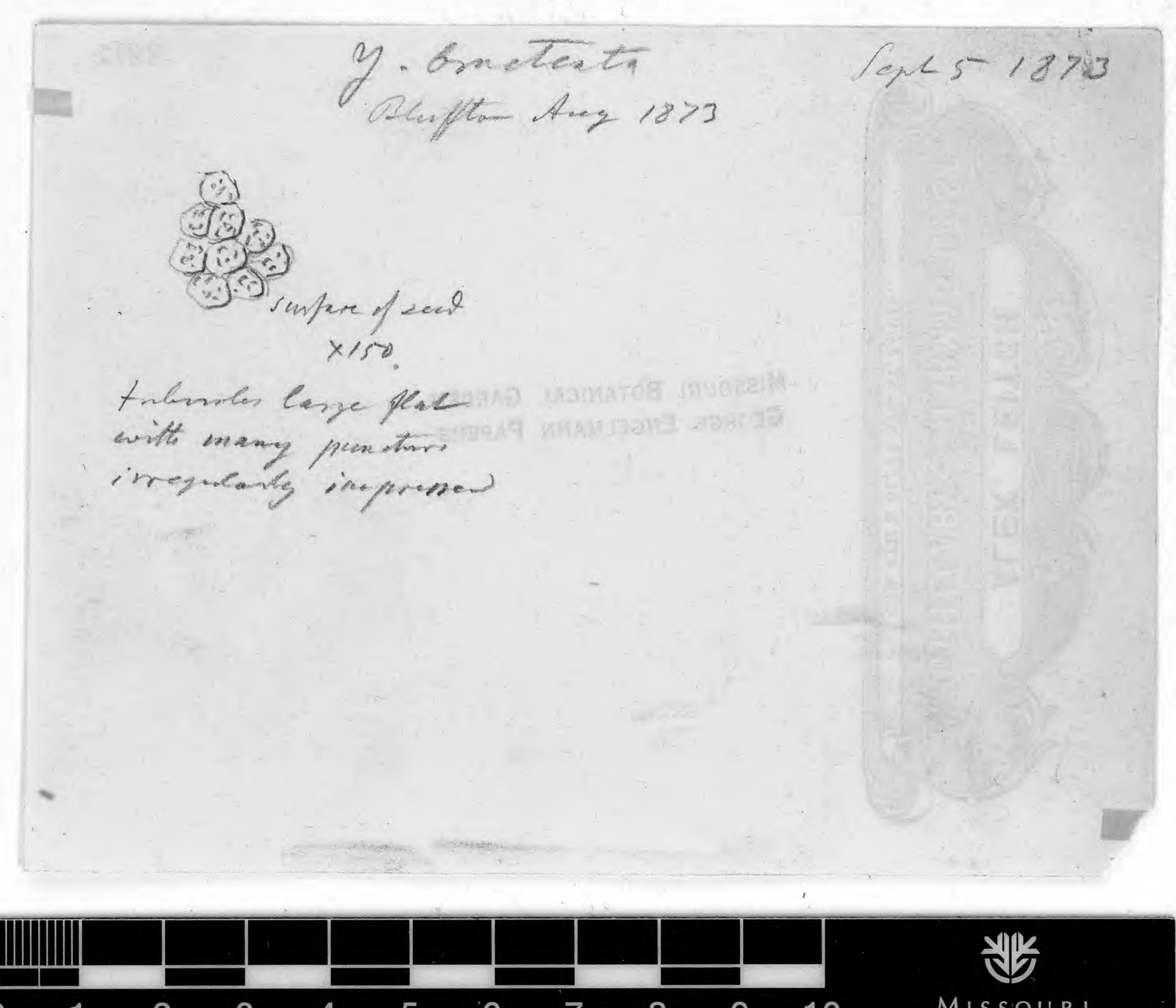






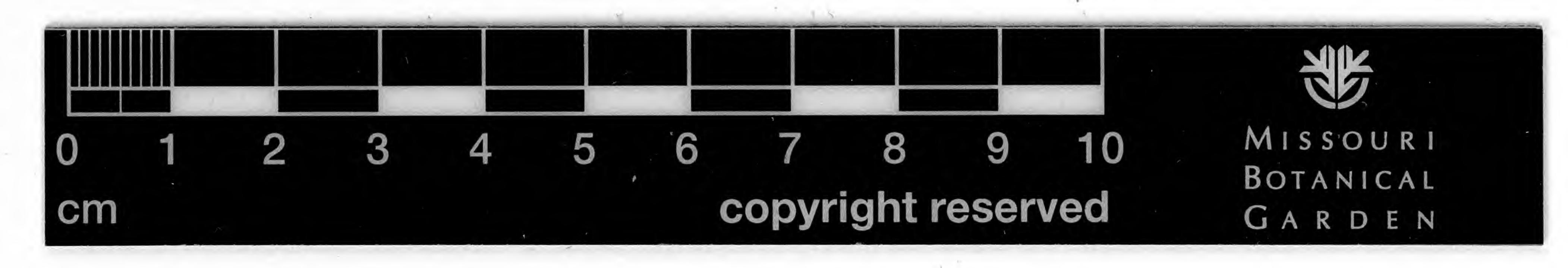












4. puberula How. Baker Refing Bot V + 322 ( ing plane near typosome.) flowing flate fine las to ocess leaver mach wider. approaches a the stigment of Canado si fruit smallen less lobed MISSOURI BOTANICAL copyright reserved cm GARDEN

